Remarks

"Label" is defined in the specification as providing transparent information useful for identification, tracking or anti-theft purposes. By amending the claims, Applicants are expressly including in the claims limits that were inherently there as originally filed. As amended, the claims make it clear that the "label" being claimed provides information (see p. 20, l. 19, to p. 21, l. 32 for basis), and isn't merely a film that provides no information as disclosed in JP'803.

Restriction

Applicants note the following Restriction requirement has been made Final:

I. Claims 1 – 4, drawn to a transparent paramagnetic label; and

II. Claims 5 – 7, drawn to a method of labeling.

Applicants continue their traverse of this requirement for the same reasons already presented. The process claimed and the labels are so connected that a search of the art out of necessity will find art pertaining to both.

Novelty Rejection – Japanese Patent No. 06-122803

At present, Claims 1 – 4 are rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent No. 06-122803 to Kozo (JP'803). Reconsideration of this rejection is requested in view of the amendments and the following remarks.

For the novelty rejection to stand, all the limitations in the claims must be taught or inherent in the single reference. Such is not the case with JP'803. The examiner acknowledges that all the limitations of the present claims are not taught in the reference, but instead maintains that they would be inherent.

For inherency to be made out, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows (there cannot be a possibility that it doesn't) from the teachings of the applied

prior art. Applicants maintain that this is not possible in view of JP'803 taken as a whole.

In the last response (Paper No. 6), Applicants argued that JP'803 was deficient in a number of ways. Applicants now respectfully traverse the positions that the examiner has taken with respect to these points as discussed below. Further, the claims as amended make it clear that the "label" being claimed pertains to a device for imparting information and not merely to a film as is disclosed in JP'803. There is no disclosure or even a suggestion in JP'803 of a label as defined in the specification all along and as now expressly included in the claims.

It is required that the claims as a whole be considered. As such, JP'803 doesn't expressly or inherently meet all of the requirements of the present invention all of the time. Even if some of the elements of the present invention were inherent, the combination of all the elements is not.

For limitations not expressly in the reference, the limitation must inherently (without possible exception) be in the reference. The mere fact that it is <u>possible</u> to meet the limitation does <u>not</u> make it inherent. For example, it may be possible to pick a weight percent (e.g., sufficient amount in claim 1, greater than 9 wt.% in claim 2, greater than 5 wt.% in claim 3) from a possible range of weight percentages (0.001 to 35 weight percent), but this does not make the required weight percent inherent because other possibilities exist.

JP'803 does not teach anything about a "magnetic mass susceptibility of at least 20 x 10^{-6} emu/g at 298 °K." The magnetic mass susceptibilities that are possible would surely include some that are below 20 x 10^{-6} emu/g at 298 °K, thus the magnetic mass susceptibility cannot be inherent. At the low end of the range of weight percents, a composition magnetic mass susceptibility of at least 20 x 10^{-6} emu/g at 298 °K is not possible. Even at 35 weight percent, some of the rare earth elements would not have sufficiently high magnetic susceptibility to result in a composition magnetic mass susceptibility of at least 20 x 10^{-6} emu/g at 298 °K (there is no teaching or suggestion of which rare earth elements go with which weight percentages). The magnetic susceptibility of neodymium oxide is 10,200 x 10^{-6} emu/g, over 8 times less than the 89,600 x 10^{-6} emu/g of dysprosium oxide.

As such, it would take over 8 times as much neodymium to get the same effect as dysprosium. See example 6 in the present case where about 7 wt.% Dysprosium was needed to provide 25 x 10^{-6} emu/g at 298 °K. Based on this comparison, 35 weight % neodymium would not result in at least 20 x 10^{-6} emu/g at 298 °K.

The mere fact that it might be possible to use a weight percent within the possible range of 0.001 to 35 weight percent with a specific rare earth element (e.g. dysprosium or thulium) from a list of possible rare earth elements (lanthium, cerium, praseodymium, dysprosium, thulium, ytterbium and ruthenium), does not make it inherent. It is also possible to use a weight percentage other than the one claimed in the present invention with the dysprosium or thulium, and not achieve a composition magnetic mass susceptibility of at least 20 x 10^{-6} emu/g at 298 °K (At the low end of the range of 0.001 to 35 weight percent, a composition magnetic mass susceptibility of at least 20 x 10^{-6} emu/g at 298 °K is not possible even with dysprosium or thulium.

The closest that JP'803 comes to inherently teaching all the limitations of the present claims is found in Examples 8 and 9. In Example 8, the weight percent thulium from the thulium methacrylate is 3.19 weight percent (Composition is 8 g of Tm Methacrylate in 100 g total. With Tm MW of 168.9 g/mol and Tm-Methacrylate MW of 423.9, the Tm3+ ion content is (168.9/423.9) x 8% = 3.19 wt% Tm). In Example 9, weight percent neodymium from the neodymium methacrylate is 1.44 wt.% and weight percent dysprosium from the dysprosium methacrylate is 1.56 wt.% (Composition is 4.0 g Nd Methacrylate and 4.0 g Dy Methacrylate in 100 g total. With Nd MW of 144.2 and Nd-Methacrylate MW of 399.2 , the Nd3+ ion content is (144.2/399.2) x 4 = 1.44 wt% Nd3+. With Dy MW of 162.5 and Dy-Methacrylate MW of 417.5, Dy3+ ion content is (162.5/417.5) x 4 = 1.56 wt% Dy3+). With such low percentages of rare earth elements, the magnetic mass susceptibility in each of these examples would be significantly less than 20 x 10^{-6} emu/g at 298 °K. In each example, the magnetic mass susceptibility would be in the order of 4 x 10^{-6} emu/g at 298 °K. (see attached)

Even if, *arguendo*, the above elements were all expressly or inherently disclosed in JP'803, there is no teaching whatsoever in JP'803 of a label that provides transparent information useful for identification, tracking and anti-theft purposes. .

In view of the above, Applicant respectfully requests withdrawal of the 35 U.S.C. §102(b) rejection over Japanese Patent No. 06-122803.

Conclusion

In view of the above remarks and amendments, it is felt that all claims are now in condition for allowance and such action is requested. Should the Examiner believe that an interview or other action in Applicants' behalf would expedite prosecution of the application, the Examiner is urged to contact Applicants' attorney by telephone at (302) 992-3219.

Respectfully submitted,

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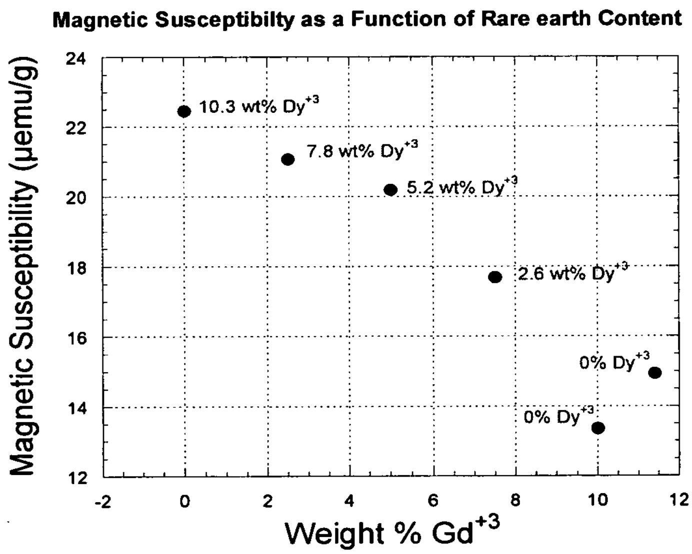
Attachment – Estimation of Magnetic Susceptibility of Compositions in JP'803

Using data that was **actually measured** for Gd and Dy ionomers as well as published data for the rare earth oxides found in the CRC Handbook, the magnetic susceptibility of the compositions of Examples 8 and 9 of JP'803 can be estimated. The approach is to use a simple ratio of rare earth content as well as relative strength of the rare earth atom type to arrive at a magnetic susceptibility estimate in emu/g. This approach assumes that magnetic susceptibility is more or less linear with rare earth content, and that the magnetic susceptibility contribution of the rare earth atoms within the polymer can be gauged by a relative comparison of rare earth oxide strengths.

Below is the actual measured data for Dysprosium and Gadolinium polymers:



Magnetic susceptibilities for the rare earth oxides from the CRC Handbook are as follows:

Dysprosium Oxide has 89,600 x 10^{-6} emu/g
Gadolium Oxide has 53,200 x 10^{-6} emu/g
Thulium Oxide has 51,444 x 10^{-6} emu/g
Neodymium Oxide has 10,200 x 10^{-6} emu/g

Using the data above, the sample with 10.3 wt% Dy and 0% Gd has a value of 22.5 x 10^{-6} emu/g. Using the ratio approach for estimating, a sample with 10.0 wt% Gd and 0% Dy should have a magnetic susceptibility of (10/10.3) x (53200/89600) x 22.5 x 10^{-6} = **12.97 x 10^{-6} emu/g** [i.e. ratio of wt% content times ratio of relative rare earth strength as given by the reported oxide values times Dy ionomer reference value]. The actual value measured from the graph above is 13.36 x 10^{-6} emu/g, thus validating this approach as a reasonable way of estimating.

JP'803 Working Example 8:

Composition is 8 g of Tm Methacrylate in 100 g total. With Tm MW of 168.9 g/mol and Tm-Methacrylate MW of 423.9, Tm3+ ion content is (168.9/423.9) x 8% = 3.19 wt% Tm

So, using the Dy ionomer as the reference in the approach outlined above, the magnetic susceptibility would be about [(3.19/10.3) x (51444/89600)] x [22.5 x 10^{-6} emu/g] = **4.0 x 10^{-6} emu/g**. As a check, using the measured Gd ionomer magnetic susceptibility as the base reference to ratio against, the magnetic susceptibility estimate would be [(3.19/10.0) x (51444/53200)] x [13.36 x 10^{-6} emu/g] = **4.1 x 10^{-6} emu/g**.

JP'803 Working Example 9:

Composition is 4.0 g Nd Methacrylate and 4.0 g Dy Methacrylate in 100 g total. With Nd MW of 144.2 and Nd-Methacrylate of 399.2, Nd3+ ion content is (144.2/399.2) x 4 = 1.44 wt% Nd3+. With Dy MW of 162.5 and Dy-Methacrylate MW of 417.5, Dy3+ ion content is (162.5/417.5) x 4 = 1.56 wt% Dy3+.

So, from the ratio approach, the estimated composition magnetic susceptibility is [(1.44/10.3) x (10200/89600) + (1.56/10.3) x (89600/89600)] x [22.5 x 10^{-6} emu/g] = **3.8 x 10^{-6} emu/g**